Application No.: 10/623064 Docket No.: TOW-031

Group Art Unit: 1711

## AMENDMENTS TO THE CLAIMS

Please cancel claims 1-6 and 8-9.

Please amend claims 7, 10 and 11 as follows.

1-6. (canceled)

7. (currently amended) A The method for producing a said proton conductive solid polymer electrolyte according to claim 6 comprising an acidic group-possessing polymer which has an acidic group and a basic polymer which is basic, said method comprising:

dissolving, in a solvent, said acidic group-possessing polymer and a monomer which produces polybenzimidazole by means of polymerization,

polymerizing said monomer to produce said polybenzimidazole,

compatibilizing said polybenzimidazole and said acidic group-possessing polymer with each other to produce a compatibilized polymer; and

separating said compatibilized polymer from said solvent, wherein polyphosphoric acid is used as said solvent.

8-9. (canceled)

10. (currently amended) A The method for producing a said proton conductive solid polymer electrolyte according to claim 6 comprising an acidic group-possessing polymer which has an acidic group and a basic polymer which is basic, said method comprising:

dissolving, in a solvent, said acidic group-possessing polymer and a monomer which produces polybenzimidazole by means of polymerization,

polymerizing said monomer to produce said polybenzimidazole,

compatibilizing said polybenzimidazole and said acidic group-possessing polymer with each other to produce a compatibilized polymer; and

separating said compatibilized polymer from said solvent, wherein a mixture of aromatic tetramine and aromatic dibasic acid is used as said monomer.

11. (currently amended) A The method for producing a said proton conductive solid

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polymer electrolyte according to claim 6 comprising an acidic group-possessing polymer which has an acidic group and a basic polymer which is basic, said method comprising:

dissolving, in a solvent, said acidic group-possessing polymer and a monomer which produces polybenzimidazole by means of polymerization,

polymerizing said monomer to produce said polybenzimidazole,

compatibilizing said polybenzimidazole and said acidic group-possessing polymer with each other to produce a compatibilized polymer; and

separating said compatibilized polymer from said solvent, wherein an aromatic compound, which has a carboxylate ester group and a pair of amino groups bonded to an aromatic nuclear, said pair of amino groups being mutually positioned at ortho-positions, is used as said monomer.

12. (original) The method for producing said proton conductive solid polymer electrolyte according to claim 10, wherein a compound represented by any one of the following chemical formulas (16) to (18) is used as said aromatic tetramine:

$$H_2N$$
 $H_2N$ 
 $NH_2$ 
 $NH_2$ 
 $NH_2$ 

wherein X9 is any one of O, S, SO<sub>2</sub>, CH<sub>2</sub>, and CO in said chemical formula (18).

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13. (original) The method for producing said proton conductive solid polymer electrolyte according to claim 10, wherein a compound represented by any one of the following chemical formulas (19) and (20) is used as said aromatic dibasic acid:

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$$R_1$$
00C  $COOR_1$   $COOR_1$ 

$$R_{1}OOC \xrightarrow{Y_{9}} X_{9} \xrightarrow{Y_{11}} X_{12} COOR_{1} \cdots (20)$$

wherein Y9 to Y12 are functional groups independently selected from H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, F, Cl, I, Br, and Ph, and R1 represents H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, or Ph (phenyl group).

14. (original) The method for producing said proton conductive solid polymer electrolyte according to claim 11, wherein a compound represented by the following chemical formula (21) is used as said aromatic compound:

$$\begin{array}{c} \text{H}_2\text{N} \\ \text{H}_2\text{N} \\ \text{Y}_9 \end{array} \qquad \cdots (21)$$

wherein Y9 is a functional group independently selected from H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, F, Cl, I, Br, and Ph, and R1 represents H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, or Ph (phenyl group).

15. (original) The method for producing said proton conductive solid polymer

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electrolyte according to claim 12, wherein a compound represented by any one of the following chemical formulas and is used as said aromatic dibasic acid:

$$R_100C \xrightarrow{Y_9} Y_{10} \\ COOR_1 \qquad \cdots (19)$$

$$R_1$$
00C  $X_9$   $Y_{11}$   $Y_{12}$   $COOR_1$   $\cdots$  (20)

wherein Y9 to Y12 are functional groups independently selected from H,  $CH_3$ ,  $C_2H_5$ , F, Cl, I, Br, and Ph, and R1 represents H,  $CH_3$ ,  $C_2H_5$ , or Ph.